

Appl. No. 09/745,177
Amdt. Dated May 11, 2004
Reply to Office Action of Feb. 11, 2004

REMARKS

Status of the Claims

Claims 1-3 and 9-26 are pending.

Claims 1-3 and 9-26 stand rejected.

I. Claim rejections under 35 U.S.C. 112

Claims 1-3 and 9-26 stand rejected under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter that the Applicants regard as the invention. Claims 1, 11, 14-17, and 24 uses the term "base" interchangeably to include base polyol, isocyanate, surfactant and solvent. The Applicants respond to the rejection of the claims 1-3 and 9-26 by amending claims 1, 11, 14, 15, 17 and 24 to more particularly point out what the Applicants consider to be the invention. Applicants respectfully request reconsideration and removal of the rejection of claims 1-3 and 9-26 under 35 U.S.C. 112, second paragraph.

II. Claim rejections under 35 U.S.C. 102

Claims 1, 3, 9-11 and 13-25 stand rejected under 35 U.S.C. 102(e) as being anticipated by Kennedy (USPN 6,395,861). The Applicants responds to the rejection of claims 1, 3, 9-11 and 13-25 with the amendment of claims 1, 2, 11, 12 and 24 adding the limitation of a combination of

Appl. No. 09/745,177
Amdt. Dated May 11, 2004
Reply to Office Action of Feb. 11, 2004

zirconium and tin catalysts not taught by the Kennedy reference. Claims 1, 3, 9-11 and 13-25 have been amended either directly or through dependence upon an amended claim and thus are no longer anticipated by Kennedy. Applicants respectfully request reconsideration and allowance of claims 1, 3, 9-11 and 13-25 as the claims are not taught by any combination of the cited art as discussed below.

III. Claim rejections under 35 U.S.C. 103

Claims 12-13 and 26 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kennedy '861 in view of Hatch et al (USPN 5,820,491). The office is correct that Kennedy does not disclose the use of zirconium as a catalyst. Blank et al (USPN 5,965,686) discloses the use of zirconium catalysts for curing urethanes, but teaches away from the use of tin catalysts and thus is an improper reference. Hatch et al discloses the use of a tin catalyst but is silent regarding combining tin with another catalyst, and it does not disclose the use of a zirconium catalyst.

The obviousness rejection of claims 12-13 and 26 is traversed. The rejection is moot as the limitation of a combination of a tin catalyst and a zirconium catalyst has been added to all independent claims. The Applicants present arguments as to the insufficiencies present in the cited obviousness combination.

Appl. No. 09/745,177
Amdt. Dated May 11, 2004
Reply to Office Action of Feb. 11, 2004

The combination of the Kennedy '861 patent with the Hatch '491 patent and Blank '686 patent references does not teach the alleged combination of at least one tin catalyst combined with at least one zirconium catalyst. The Hatch et al. '491 patent teaches the use of a tin catalyst for drying, but does not teach the combination with a second additional metal catalyst. The Blank et al. '686 patent teaches the use of a zirconium metal catalyst combined with a hafnium metal catalyst, but clearly teaches away from the combination with tin, which it describes as deficient in all properties. One skilled in the art would not be motivated to combine the zirconium catalyst of Blank '686 with the tin catalysts of either Hatch '491 or Kennedy '861 which teaches the use of the tin based compounds.

Whether or not disclosures in two or more prior art references are properly combinable depends, generally, on whether there is some teaching, suggestion or motivation in those references or elsewhere in the prior art to suggest the desirability of making the combination. The mere fact that it is possible to find isolated disclosures having some individual features that might be combined in a manner that would result in the claimed invention is not enough. There must be something in the prior art itself that suggests the desirability of the claimed combination. It is improper to pick and choose among the individual parts

Appl. No. 09/745,177
Amdt. Dated May 11, 2004
Reply to Office Action of Feb. 11, 2004

of various prior art references as a mosaic to recreate a facsimile of the claimed invention using the inventors' disclosure as an instruction book or blue print on how to reconstruct the prior art. To do so is impermissible hindsight reasoning. Additionally, the problem confronted by the inventor must be considered in determining whether it would have been obvious to combine the references in that manner to solve a particular problem. See *In Re Sang Su Lee*, 277 F.3d 1338, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002) and *In Re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1599 (Fed. Cir. 1988).

The Blank et al. '686 patent teaches the combination of two specific metal catalysts, zirconium and hafnium, but specifically rejects the use of a tin catalysts, either singly or in combination with a second metal catalyst because of its deficiencies. Tin catalysts in the '686 patent are taught as being inferior in both its performance properties and toxicity levels. (see presented below: Column 6, line 50 to column 7, line 7)

The catalyst of this invention also preferentially catalyze the isocyanate-hydroxy reaction over the isocyanate-water reaction. **Organo tin does not exhibit this preferential catalysis**, and also catalyze the isocyanate-water reaction, **which leads to the formation of carbon dioxide and gassing**. For example, to prepare a polyurethane coating with exclusive carbamate linkages, a coating formulation

Appl. No. 09/745,177
Amdt. Dated May 11, 2004
Reply to Office Action of Feb. 11, 2004

containing HDI based aliphatic isocyanate and a polyurethane diol with beta-carbamate was formulated. When the metal complex of the present invention was used as the catalysts, a hard glossy film was obtained. *Whereas, with dibutyltin dilaurate as the catalyst, a hazy film was obtained. This is due to the competing reaction of isocyanate with moisture in the air.*

Furthermore, it is known that commercial organotin urethane catalysts will affect the durability of the final product. This is due to the catalytic effect of organotin catalysts on the degradation of the polymer product. The metal complexes of the present invention shows less of a catalytic effect on the degradation of the polymer than the tin urethane catalysts. For a solution with polyester resin, water and catalysts, the degradation rate of polyester with the catalyst of this invention is 5 times slower than a typical tin catalyst.
(emphasis added)

Thus one skilled in the art of golf ball coating would not be motivated to combine what is described as an inferior tin catalyst in the '686 patent with either zirconium or any other metal catalyst to improve drying.

It is improper, with regard to claims 12-13 and 26 to use the '686 patent to teach the combination of a tin catalyst with a zirconium catalyst because the '686 patent specifically teaches away from using tin as a catalyst, either alone, or in combination with another metal catalyst.

Hatch et al. and Kennedy does not teach or suggest the combination of tin with a zirconium catalyst. Without the improper use of the Blank '686 the remaining cited combination fails to teach the limitations of claims 12-13

Appl. No. 09/745,177
Amdt. Dated May 11, 2004
Reply to Office Action of Feb. 11, 2004

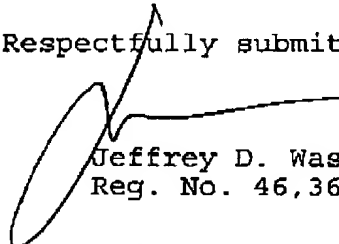
and 26. Applicants respectfully request reconsideration and removal of the obviousness rejection.

IV. Conclusion

Applicants respectfully request reconsideration and removal of all rejections to claims 1-3 and 9-26, which are clearly patentable as amended over the cited prior art combinations.

Please feel free to call collect with any questions regarding this submission or any matters relating to this application.

Respectfully submitted,



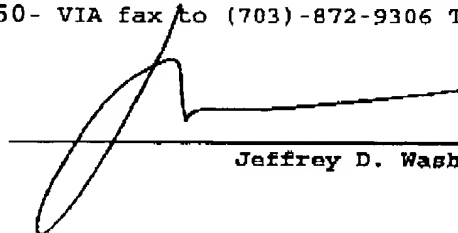
Jeffrey D. Washville
Reg. No. 46,366

Date: May 11, 2004

15 Rye Street, Suite 312
Portsmouth, NH 03801
Tel.: (603) 427-0070
FAX: (603) 427-5530

Certificate of Facsimile under 1.8

The undersigned hereby certifies that this paper along with any paper or document referred to therein as being attached or enclosed, is being deposited with the United States Postal Service to the Mail Stop Non fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450- VIA fax to (703)-872-9306 This 11th day of May, 2004.



Jeffrey D. Washville